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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,419	02/17/2004	Masanobu Sugimori	36856.1225	1302

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EXAMINER

NGUYEN, TAI V

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,419

Applicant(s)

SUGIMORI ET AL.

Examiner

Tai Van Nguyen

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/006,698.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/17/04, 6/01/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The following title is suggested: A METHOD FOR MANUFACTURING AN ELECTRONIC COMPONENT.

Applicant is reminded of the proper content of an abstract of the disclosure.

3. A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

4. The abstract of the disclosure is objected to because the abstract is not drawn to the claimed invention, i. e. method. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 11 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshinaga (US 5,184,043).

As applied to claims 11, 14 and 15, Yoshinaga discloses a method for manufacturing an electronic component, comprising the steps of: preparing a pair of conductive wires (23, 33, Fig. 5); bending one end portion of the conductive wires outwards (21, 31) at an angle of about 90 degrees, forming a flat portion by press extending at least the portion on the tip side from the bending point so as to be extended substantially parallel to a lead portion of the lead terminal (20, 30), forming a cup-shaped holder portion by bending the flat portion inwards, holding both end portions of a piezoelectric element in a pair of the cup-shaped holder portions (21, 31); and electrically and mechanically connecting the cup-shaped holder portions and the electrodes formed in both end portions of the piezoelectric element by using a conductive joining material (sequence Fig. 1-4).

As applied to claim 13, Yoshinaga discloses wherein the lead portions as the other end of the conductive wires are welded and fixed to a metal hoop material with pilot holds having a fixed distance there between (see Fig. 3).

As applied to claim 16, Yoshinaga discloses further comprising the step of integrally sealing the piezoelectric element, the pair of lead terminals and the conductive joining material in a packaging resin (50, Fig. 1).

As applied to claim 17, Yoshinaga discloses wherein the electronic component is a resonator (1, Fig. 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga in view of Kugou et al (US 5,596,244).

As applied to claim 18, Yoshinaga discloses substantially all of the limitations of the claimed invention except that the step the piezoelectric element is an energy trap thickness shear vibration mode element.

However, Kugou et al teach the piezoelectric element is an energy trap thickness shear vibration mode element (column 1, lines 18-22).

As applied to claim 19 Kugou et al wherein each of the lead terminals are made of a round lead wire of about 0.48 mm in diameter (column 5, lines 48-51).

It would have been obvious to one ordinary skill in the art at this time the invention was made to have modified the method of Yoshinaga by provide an energy

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trap thickness shear vibration mode element as taught by Kugou et al, to positively reduce the working cost and the material cost for producing the lead terminals (column 2, lines 45-47).

9. Claims 12, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga in view of Ikeda et al (US. 6,005,329).

As applied to claims 12 and 20, Yoshinaga discloses substantially all of the limitations of the claimed invention except that the step of copper plating on a surface.

However, Ikeda et al. teaches the step copper plating on a surface (column 8, lines 51-60).

As applied to claim 21, Ikeda et al disclose a width of the flat portions is about 0.8 mm to about 1 .0 mm and a thickness of the flat portions is about 0.15 mm lo about 0.2 mm (column 6, lines 65-67).

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Yoshinaga by providing copper plating on a surface, as taught by Ikeda, to positively provide a piezoelectric resonator which is easy to support, hard to fluctuate frequency, thin inexpensive and desirable as a surface mounting component (column 2, lines 30-34).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 571-272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN.
November 30, 2005


A. DEXTER TUGBANG
PRIMARY EXAMINER